C-4

EPA General Permit WAG130000 - Annual Report

Annual Report of Operations for Year 2019

To comply with NPDES General Permit No. WAG130000 for Federal Aquaculture Facilities and Aquaculture Facilities Located in Indian Country within the Boundaries of the State of Washington

NPDES # for your Facility:

~~WAG13025~~ WAG130025

RECEIVED
JAN 29 2020
EPA - REGION 10
Enforcement & Compliance Assurance Division

Facility & Owner Information

Facility Name:
Chief Joseph Hatchery

Operator Name (Permittee):
Matt McDaniel &Randall Friedlander

Address:
P.O. Box150
Nespelem, WA 99155

Email: matthew.mcdaniel.fnw@colvilletribes.com
Phone: 509-631-1870

Owner Name (if different from operator):
Colville Confederated Tribes

Email:
Phone:

Best Management Practices (BMP) Plan

Has the BMP Plan been reviewed this year? ■ Yes ☐ No

Does the BMP Plan fulfill the requirements of the General Permit? ■ Yes ☐ No

Summarize any changes to the BMP Plan since the last annual report. Attach additional pages if necessary.

No changes have been made to the BMP since the last annual report.

ICIS
1/31/2020
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Operations and Production

Total harvestable weight produced in the past calendar year in pounds (lbs):	256,469 lbs
Pounds of food fed to fish during the maximum month:	49,977 lbs

List the species grown or held at your facility and the annual production of each in gross harvestable weight. If fish were released rather than harvested, list the weight at time of release.

Species	Fish Produced	Receiving Water(s) to which Fish were Released	Month Released/ Spawned
BY- 17 SEG Sp CK	9,406	Columbia River	April 2019
BY- 17 SEG Su CK	12,992	Columbia River	April 2019
BY- 18 SEG Sp CK	6,094 lbs	Currently On Station	April 2020
BY- 18 SEG Su Ck	13,800 lbs	Currently On Station	April 2020
BY- 18 INT Su CK	16,437 lbs	Transferred Off Station	October 2019
BY- 18 INT Sp CK	1,033 lbs	Transferred Off Station	October 2019

Fill in the table below with production numbers from the past year. List the **maximum** amount of fish on-site and the maximum amount of food fed **per month**.

Month	Total Fish (lbs)	Fish Feed (lbs)	Month	Total Fish (lbs)	Fish Feed (lbs)
January	26,710	5,061	July	24,817	7,998
February	29,260	2,898	August	30,728	6,939
March	32,066	4,909	September	31,278	2,365
April	9,061	2,081	October	15,477	5,193
May	6,819	1,268	November	19,368	3,001
June	10,887	5,608	December	19,998	2,656

Additional Comments:

Solid Waste Disposal

Describe the solid waste disposed of during the calendar year (including fish mortalities).

Type of Solid Disposed	Date Disposed	Location Disposed
Egg juvenile and adult mortalities	Jan- Dec 2019	Landfill
Additional Comments:		

Fish Mortalities

Include a description and the dates of mass mortalities in the past year (more than 5% per week). Attach additional pages, if necessary. Include total mortalities from all causes.

Date	Cause of Deaths	Steps Taken to Correct Problem	Pounds of Fish
Additional Comments:			

Noncompliance Summary

Include a description and the dates of noncompliance events (including spills), the reasons for the incidents, and the steps taken to correct the problems. Attach additional pages, if necessary.

No noncompliance events to report.

Inspections & Repairs for Production & Wastewater Treatment Systems

Date Inspected	Date Repaired	Description of System Inspected and/or Repaired

Aquaculture Drugs and Chemicals

Please indicate whether you used each drug/chemical **during the past calendar year**.
Describe the use of each drug/chemical in more detail on the following pages.

Used in the past year?	Drug or Chemical
☐ Yes ■ No	Azithromycin
■ Yes ☐ No	Chloramine-T: ***See additional reporting requirements on page 7***
☐ Yes ■ No	Chlorine
☐ Yes ■ No	Draxxin
☐ Yes ■ No	Erythromycin - injectable
☐ Yes ■ No	Erythromycin - medicated feed
☐ Yes ■ No	Florfenicol (Aquaflor)
■ Yes ☐ No	Formalin - 37% formaldehyde: ***See additional reporting requirements on page 7***
■ Yes ☐ No	Herbicide - describe: Diquat was used to treat adults
☐ Yes ■ No	Hormone - describe:
■ Yes ☐ No	Hydrogen Peroxide: ***See additional reporting requirements on page 7***
■ Yes ☐ No	Iodine: ***See additional reporting requirements on page 7***
☐ Yes ■ No	Oxytetracycline
☐ Yes ■ No	Potassium Permanganate: ***See additional reporting requirements on page 7***
☐ Yes ■ No	Romet
☐ Yes ■ No	SLICE (emamectin benzoate)
☐ Yes ■ No	Sodium Chloride - salt
☐ Yes ■ No	Vibrio vaccine
☐ Yes ☐ No	Other:
☐ Yes ☐ No	Other:

Aquaculture Drugs and Chemicals (cont'd)

Describe all drug and/or chemical treatments that occurred during the year. Fill out the information below for each drug or chemical, plus page 7 for water-borne treatments. Attach additional pages as necessary.

Brand Name: Halamid Aqua		Generic Name: Chloromine T	
Reason for use: Control Columnaris			
■ Preventative/Prophylactic ☐ As-needed	Total quantity of formulated product per treatment (specify units): Varies	Total quantity of formulated product used in past year (specify units): 947 lbs	
Date(s) of treatment: Jul- Aug 2019			Total number of treatments in past year: 28
Maximum daily volume of treated water: 15,104,679 mgd	Treatment concentration (specify units): 12 ppm	Duration and frequency of treatment(s): 60 min a day	
Method of application:	☐ Static Bath ■ Flow-through	☐ Medicated Feed ☐ Other (describe):	
Location in facility chemical was used (check all that apply):	■ Raceways ☐ Incubation building	☐ Ponds ☐ Off-line settling basin	☐ Other (describe):
Where did water treated with this chemical go? (check all that apply):	■ Discharged w/o treatment ☐ Settling basin	☐ Septic System ☐ Publicly owned treatment works	☐ Other (describe):
Provide any additional information about how this chemical was used and/or special pollution prevention practices during use:			

Brand Name: Parasite-S		Generic Name: Formalin 37% formaldehyde	
Reason for use: Control Saprolegnia fungus			
■ Preventative/Prophylactic ☐ As-needed	Total quantity of formulated product per treatment: Varies	Total quantity of formulated product used in past year (specify units): 870 gallons	
Date(s) of treatment: May- Dec 2019			Total number of treatments in past year: 154
Maximum daily volume of treated water: 17,369,831 mgd	Treatment concentration (specify units): 100- 1667 ppm	Duration and frequency of treatment(s): Varies 15- 60 min a day	
Method of application:	☐ Static Bath ■ Flow-through	☐ Medicated Feed ☐ Other (describe):	
Location in facility chemical was used (check all that apply):	■ Raceways ■ Incubation building	☐ Ponds ☐ Off-line settling basin	☐ Other (describe):
Where did water treated with this chemical go? (check all that apply):	■ Discharged w/o treatment ■ Settling basin	☐ Septic System ☐ Publicly owned treatment works	☐ Other (describe):
Provide any additional information about how this chemical was used and/or special pollution prevention practices during use:			

Aquaculture Drugs and Chemicals (cont'd)

Describe all drug and/or chemical treatments that occurred during the year. Fill out the information below for each drug or chemical, plus page 7 for water-borne treatments. Attach additional pages as necessary.

Brand Name: Reward		Generic Name: Diquat	
Reason for use: Control mortality caused by bacterial gill disease and flavobacteriosis			
■ Preventative/Prophylactic ☐ As-needed	Total quantity of formulated product per treatment (specify units): Varies	Total quantity of formulated product used in past year (specify units): 108 gallons	
Date(s) of treatment: Aug- Oct 2019			Total number of treatments in past year: 21
Maximum daily volume of treated water: 17,369,831 mgd	Treatment concentration (specify units): 5- 18 ppm	Duration and frequency of treatment(s): 180 min a day	
Method of application:	☐ Static Bath ■ Flow-through	☐ Medicated Feed ☐ Other (describe):	
Location in facility chemical was used (check all that apply):	■ Raceways ☐ Incubation building	☐ Ponds ☐ Off-line settling basin	☐ Other (describe):
Where did water treated with this chemical go? (check all that apply):	■ Discharged w/o treatment ☐ Settling basin	☐ Septic System ☐ Publicly owned treatment works	☐ Other (describe):
Provide any additional information about how this chemical was used and/or special pollution prevention practices during use:			

Brand Name: 35% Perox- Aid		Generic Name: 35% Hydrogen Peroxide	
Reason for use: Control infectious copepods on adult summer Chinook			
■ Preventative/Prophylactic ☐ As-needed	Total quantity of formulated product per treatment: 4.3, 6, 8.6	Total quantity of formulated product used in past year (specify units): 1532 gallons	
Date(s) of treatment: May- Oct 2019			Total number of treatments in past year: 51
Maximum daily volume of treated water: 17,369,831 mgd	Treatment concentration (specify units): 50, 70, 100 ppm	Duration and frequency of treatment(s): 60 min a day	
Method of application:	☐ Static Bath ■ Flow-through	☐ Medicated Feed ☐ Other (describe):	
Location in facility chemical was used (check all that apply):	■ Raceways ☐ Incubation building	☐ Ponds ☐ Off-line settling basin	☐ Other (describe):
Where did water treated with this chemical go? (check all that apply):	■ Discharged w/o treatment ☐ Settling basin	☐ Septic System ☐ Publicly owned treatment works	☐ Other (describe):
Provide any additional information about how this chemical was used and/or special pollution prevention practices during use:			

Aquaculture Drugs and Chemicals (cont'd)

Describe all drug and/or chemical treatments that occurred during the year. Fill out the information below for each drug or chemical, plus page 7 for water-borne treatments. Attach additional pages as necessary.

Brand Name: Ovadine		Generic Name: PVP Ovadine	
Reason for use: Equipment fish egg disinfection			
■ Preventative/Prophylactic ☐ As-needed	Total quantity of formulated product per treatment (specify units): Varies	Total quantity of formulated product used in past year (specify units): 220 gallons	
Date(s) of treatment: January- December 2019			Total number of treatments in past year: Varies
Maximum daily volume of treated water: 17,369,831 mgd	Treatment concentration (specify units): 100 ppm	Duration and frequency of treatment(s): Varies 10- 60 minutes	
Method of application:	■ Static Bath ☐ Flow-through	☐ Medicated Feed ☐ Other (describe):	
Location in facility chemical was used (check all that apply):	☐ Raceways ■ Incubation building	☐ Ponds ☐ Off-line settling basin	☐ Other (describe):
Where did water treated with this chemical go? (check all that apply):	☐ Discharged w/o treatment ■ Settling basin	☐ Septic System ☐ Publicly owned treatment works	☐ Other (describe):
Provide any additional information about how this chemical was used and/or special pollution prevention practices during use:			

Brand Name: Aquaflor		Generic Name: Florfenicol	
Reason for use: Medicated feed for juvenile fish			
☐ Preventative/Prophylactic ■ As-needed	Total quantity of formulated product per treatment: Varies	Total quantity of formulated product used in past year (specify units): 17,380 lbs	
Date(s) of treatment: July- October 2019			Total number of treatments in past year: 183
Maximum daily volume of treated water: 17,369,831 mgd	Treatment concentration (specify units):	Duration and frequency of treatment(s):	
Method of application:	☐ Static Bath ☐ Flow-through	■ Medicated Feed ☐ Other (describe):	
Location in facility chemical was used (check all that apply):	■ Raceways ☐ Incubation building	■ Ponds ☐ Off-line settling basin	☐ Other (describe):
Where did water treated with this chemical go? (check all that apply):	■ Discharged w/o treatment ■ Settling basin	☐ Septic System ☐ Publicly owned treatment works	☐ Other (describe):
Provide any additional information about how this chemical was used and/or special pollution prevention practices during use:			

Aquaculture Drugs and Chemicals (cont'd)

Additional Reporting Requirements for Water-Borne Treatments

- If a water-borne treatment was used during the calendar year, Permittees must include detailed records/calculations as an attachment to this Annual Report in order to demonstrate how the maximum effluent concentrations of solution and active ingredient were calculated for each chemical.
- EPA recognizes that water-borne treatments may vary in the volume of the vessels treated, concentration, quantity of product, etc. Permittees must provide the information listed in the following tables for a reasonable worst case (i.e., maximum effluent concentration) scenario, not for each individual treatment.
- Permittees must submit this information and calculate the maximum effluent concentration for each water-borne chemical used during the past calendar year.
- See also Appendix D for the Chemical Log Sheet.

Static Bath Treatments	
Tank Volume	Liters
Desired Static Bath Treatment Concentration	µg/L
Volume of Product Needed	Liters Product
Maximum Effluent Concentration of: 1) Solution and 2) Active Ingredient	Solution: Active Ingredient: Specify Units
Minimum Volume of Total (treated + untreated) Water Discharged from the Facility per day	Specify Units
Maximum % of Facility Discharge Treated	% of Total Discharge

Flow-Through Treatments	
Tank Volume	91841 Liters
Calculated Flow Rate	1893 Liters/Minute
Duration of Treatment	60 Minutes
Desired Flow-Through Treatment Concentration of Product	167,000 µg/L
Amount of Product to Add Initially	N/A Liters Product
Amount of Product to Add During Treatment	316 mL/Minute
Total Volume of Product Needed	18,963 Liters Product
Maximum Effluent Concentration of: 1) Solution and 2) Active Ingredient	Solution: .0069224198 L/min Active Ingredient: 100% Specify Units
Minimum Volume of Total (treated + untreated) Water Discharged from the Facility per day	578,994 gal/ day Specify Units
Maximum % of Facility Discharge Treated	3.28 % of Total Discharge

Aquaculture Drugs and Chemicals (cont'd)

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Static Bath Treatments	
Tank Volume	Liters
Desired Static Bath Treatment Concentration	µg/L
Volume of Product Needed	Liters Product
Maximum Effluent Concentration of: 1) Solution and 2) Active Ingredient	Solution: Active Ingredient: Specify Units
Minimum Volume of Total (treated + untreated) Water Discharged from the Facility per day	Specify Units
Maximum % of Facility Discharge Treated	% of Total Discharge

Flow-Through Treatments	
Tank Volume	130,704 Liters
Calculated Flow Rate	5,955 Liters/Minute
Duration of Treatment	60 Minutes
Desired Flow-Through Treatment Concentration of Product	100,000 µg/L
Amount of Product to Add Initially	N/A Liters Product
Amount of Product to Add During Treatment	595 mL/Minute
Total Volume of Product Needed	35.7 Liters Product
Maximum Effluent Concentration of: 1) Solution and 2) Active Ingredient	Solution: .0010276445 Active Ingredient: 37% Specify Units
Minimum Volume of Total (treated + untreated) Water Discharged from the Facility per day	578,994 Specify Units
Maximum % of Facility Discharge Treated	6.17 % of Total Discharge

Aquaculture Drugs and Chemicals (cont'd)

Additional Reporting Requirements for Water-Borne Treatments

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- Permittees must submit this information and calculate the maximum effluent concentration for each water-borne chemical used during the past calendar year.
- See also Appendix D for the Chemical Log Sheet.

Static Bath Treatments	
Tank Volume	Liters
Desired Static Bath Treatment Concentration	µg/L
Volume of Product Needed	Liters Product
Maximum Effluent Concentration of: 1) Solution and 2) Active Ingredient	Solution: Active Ingredient: Specify Units
Minimum Volume of Total (treated + untreated) Water Discharged from the Facility per day	Specify Units
Maximum % of Facility Discharge Treated	% of Total Discharge

Flow-Through Treatments	
Tank Volume	367364 Liters
Calculated Flow Rate	1,893 Liters/Minute
Duration of Treatment	60 Minutes
Desired Flow-Through Treatment Concentration of Product	100,000 µg/L
Amount of Product to Add Initially	N/A Liters Product
Amount of Product to Add During Treatment	757 mL/Minute
Total Volume of Product Needed	45.42 Liters Product
Maximum Effluent Concentration of: 1) Solution and 2) Active Ingredient	Solution: .00001658 L/min Active Ingredient: 35% Specify Units
Minimum Volume of Total (treated + untreated) Water Discharged from the Facility per day	17,369,831 mgd Specify Units
Maximum % of Facility Discharge Treated	.0995 % of Total Discharge

Aquaculture Drugs and Chemicals (cont'd)

Additional Reporting Requirements for Water-Borne Treatments

- If a water-borne treatment was used during the calendar year, Permittees must include detailed records/calculations as an attachment to this Annual Report in order to demonstrate how the maximum effluent concentrations of solution and active ingredient were calculated for each chemical.
- EPA recognizes that water-borne treatments may vary in the volume of the vessels treated, concentration, quantity of product, etc. Permittees must provide the information listed in the following tables for a reasonable worst case (i.e., maximum effluent concentration) scenario, not for each individual treatment.
- Permittees must submit this information and calculate the maximum effluent concentration for each water-borne chemical used during the past calendar year.
- See also Appendix D for the Chemical Log Sheet.

Static Bath Treatments	
Tank Volume	2934 Liters
Desired Static Bath Treatment Concentration	100,000 µg/L
Volume of Product Needed	29.3 Liters Product
Maximum Effluent Concentration of: 1) Solution and 2) Active Ingredient	Solution: .0006418 L/ min Active Ingredient: 1.0% Specify Units
Minimum Volume of Total (treated + untreated) Water Discharged from the Facility per day	17,369,831 mgd Specify Units
Maximum % of Facility Discharge Treated	.06418 % of Total Discharge

Flow-Through Treatments	
Tank Volume	Liters
Calculated Flow Rate	Liters/Minute
Duration of Treatment	Minutes
Desired Flow-Through Treatment Concentration of Product	µg/L
Amount of Product to Add Initially	Liters Product
Amount of Product to Add During Treatment	mL/Minute
Total Volume of Product Needed	Liters Product
Maximum Effluent Concentration of: 1) Solution and 2) Active Ingredient	Solution: Active Ingredient: Specify Units
Minimum Volume of Total (treated + untreated) Water Discharged from the Facility per day	Specify Units
Maximum % of Facility Discharge Treated	% of Total Discharge

Changes to the Facility or Operations

Describe any changes to the facility or operations since the last annual report.

Signature and Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly evaluate and gather the information submitted. Based on my inquiry of the person or persons, who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Matthew McDaniel	Chief Joseph Hatchery Manager
Printed name of person signing	Title
Matthew T McDaniel	Jan 27, 2020
Applicant Signature	Date Signed

Submittal Information

Send the complete, signed information, along with any attachments, to the following address:

U.S. EPA Region 10, OWW-191

Washington Hatchery Annual Report

1200 Sixth Avenue, Suite 900

Seattle, WA 98101-3140

DISEASES AND TREATMENTS

DATE:	1/22/2020	HATCHERY:	Chief Joseph Hatchery	

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DATE	BROOD YEAR/ SPECIES	POND NUMBERS	TREATMENT CHEMICAL	DISEASE OR USE	AMOUNT USED
Jan - Dec 2019	BY-2019 Spring/Summer Chinook Adult/Juveniles/Eggs	Raceways, Ponds, Incubators	Formalin	Fungus	870 gallons
Jul-19	BY-2019 Summer Chinook Adults	Adult Ponds	Chloromine-T	Columnaris	176 lbs
Jan - Dec 2019	BY-2019 Spring/Summer Chinook Eggs	Disinfectant	Ovadine	Disinfectant of eggs & hatchery equipment	220 gallons
May- October 2019	BY-2019 Spring Chinook Adults	Adult Ponds	Hydrogen Peroxide 35%	Copepods	1495 gallons
Aug- Oct 2019	BY-2019 Summer Chinook Adults	Adult Ponds	Diquat	Columnaris	108 gallons